Abstract of the Disclosure

IMPROVING THE ADHESION BETWEEN RUBBER COMPONENTS

The process of this invention can be utilized to improve the adhesion between rubber components. It is generally most useful for improving the adhesion between two different pre-cured rubber components or for improving the adhesion between a pre-cured rubber component and an uncured (green) rubber component. However, the technique of this invention can also be employed to improve the adhesion between two uncured rubber components. The technique of this invention is based upon the unexpected discovery that low molecular weight trans-1,4-polybutadiene containing rubber compounds can be used to improve the adhesion between rubber components. This invention more specifically reveals a technique for improving the adhesion between a first rubber component and a second rubber component in a process for manufacturing a cured rubber article, said technique comprising the steps of: (1) positioning a layer of an adhesion-promoting rubber composition which is comprised of a low molecular weight trans-1,4-polybutadiene rubber between the first rubber component and the second rubber component, (2) bringing the first rubber component into contact with one side of the layer of adhesion-promoting rubber composition and bringing the second rubber composition into contact with the other side of the layer of adhesion-promoting rubber composition and (3) curing the first rubber composition, the second rubber composition and the adhesion-promoting rubber composition together under conditions of heat and pressure to produce the cured rubber article.